



Western North America Mercury Synthesis (WNAMS)

A Multi-disciplinary, tri-national assessment of the climate, landscape, and land use controls on mercury risk to ecological and human health across western North America

Co-PIs:

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Global

UNEP –
Global
Binding
Mercury
Treaty

Continental

United
States -
MercNet

North
America -
CEC

Regional

Northeast

Great
Lakes

Western

Southeast

Tri-National Collaboration

Western North America Hg Synthesis

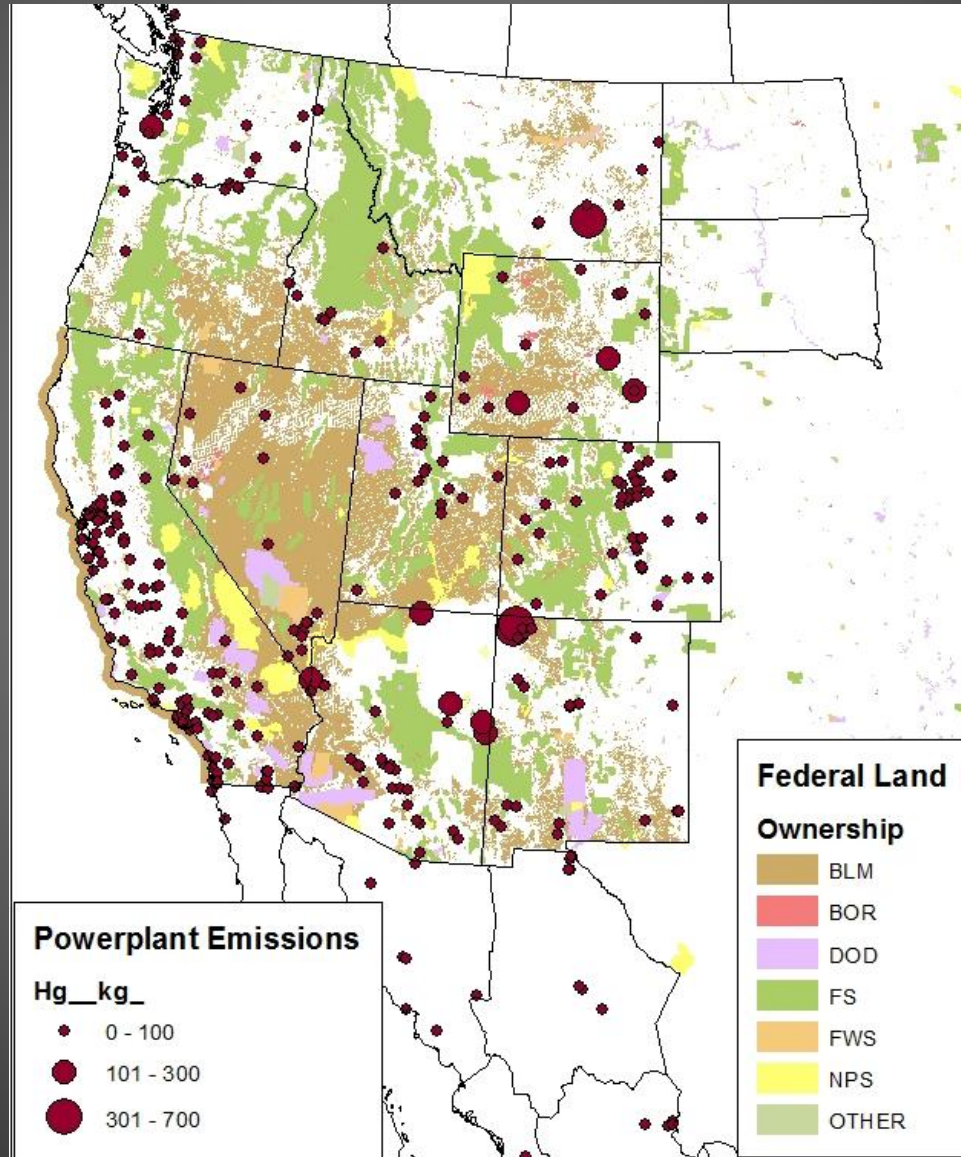


Tri-National Collaboration

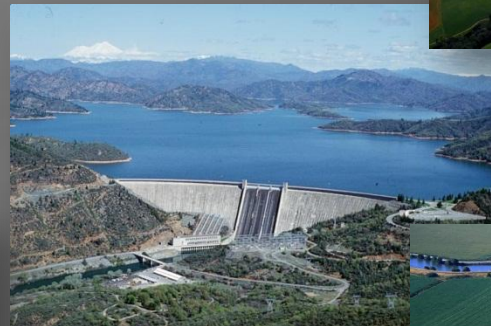
Initial support from USGS Powell Center and the
National Park Service



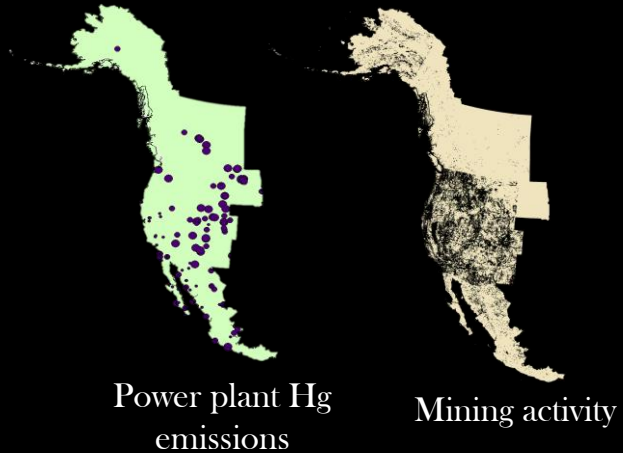
Managed Public Lands in the West



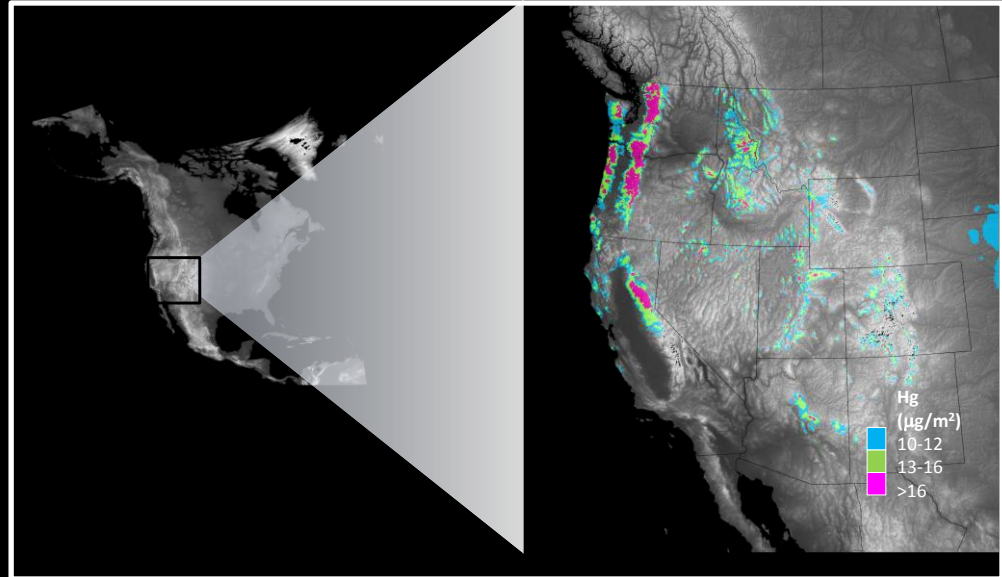
Habitat Diversity Across Western North America



SOURCES



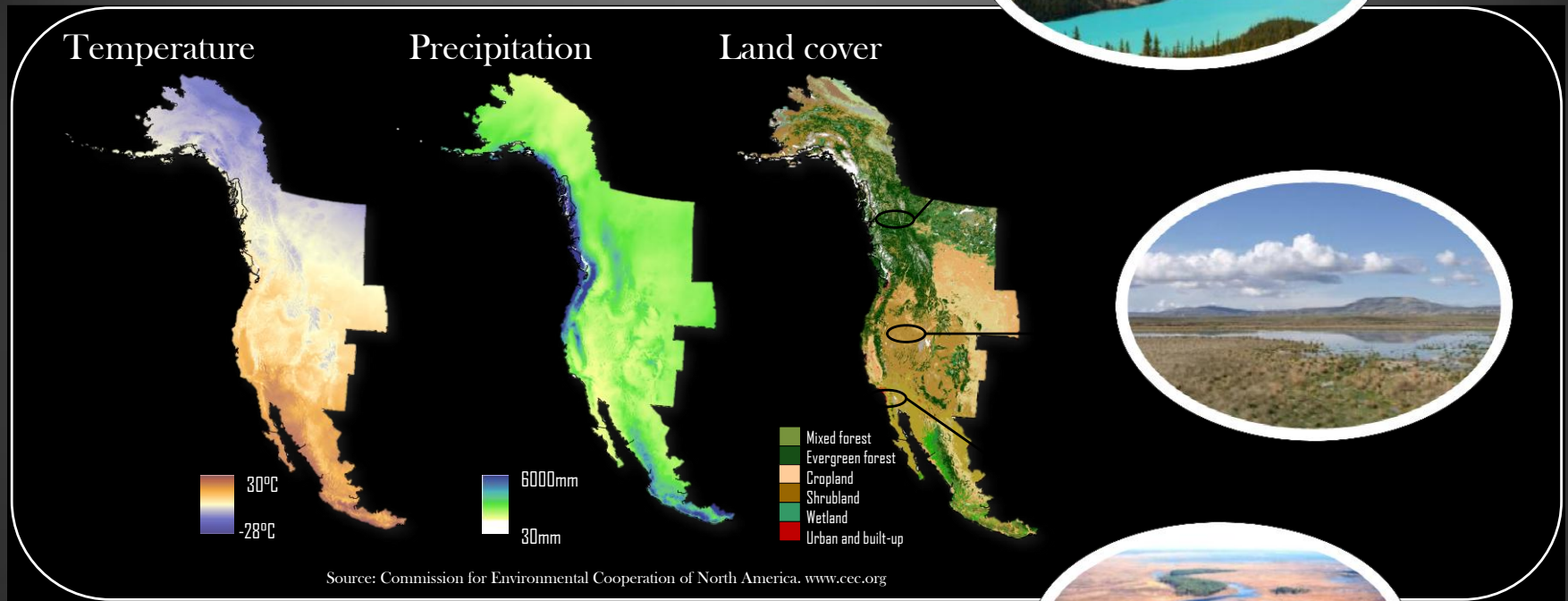
Modeled Total Hg Wet Deposition



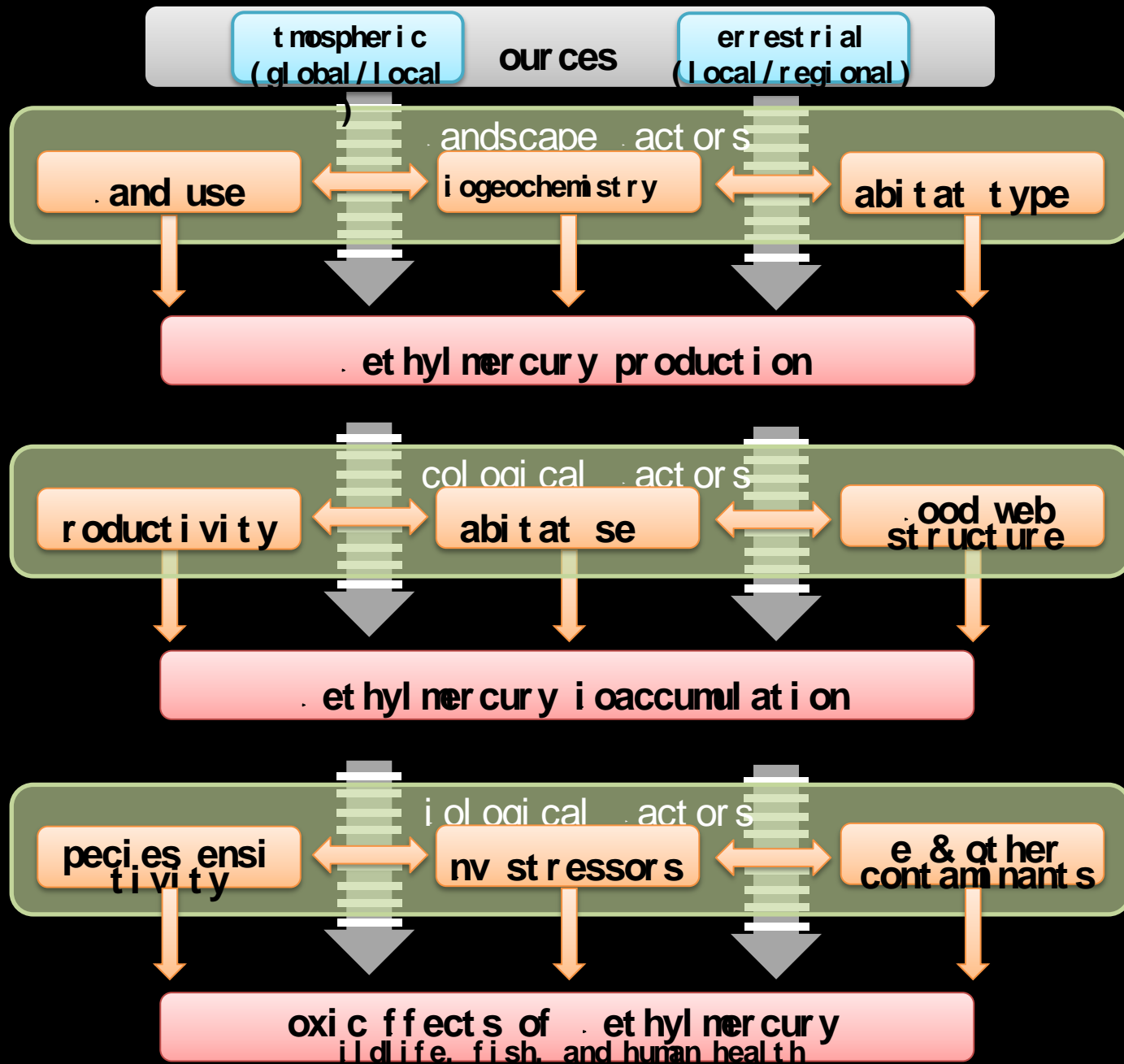
Western North America is uniquely characterized by a combination of:

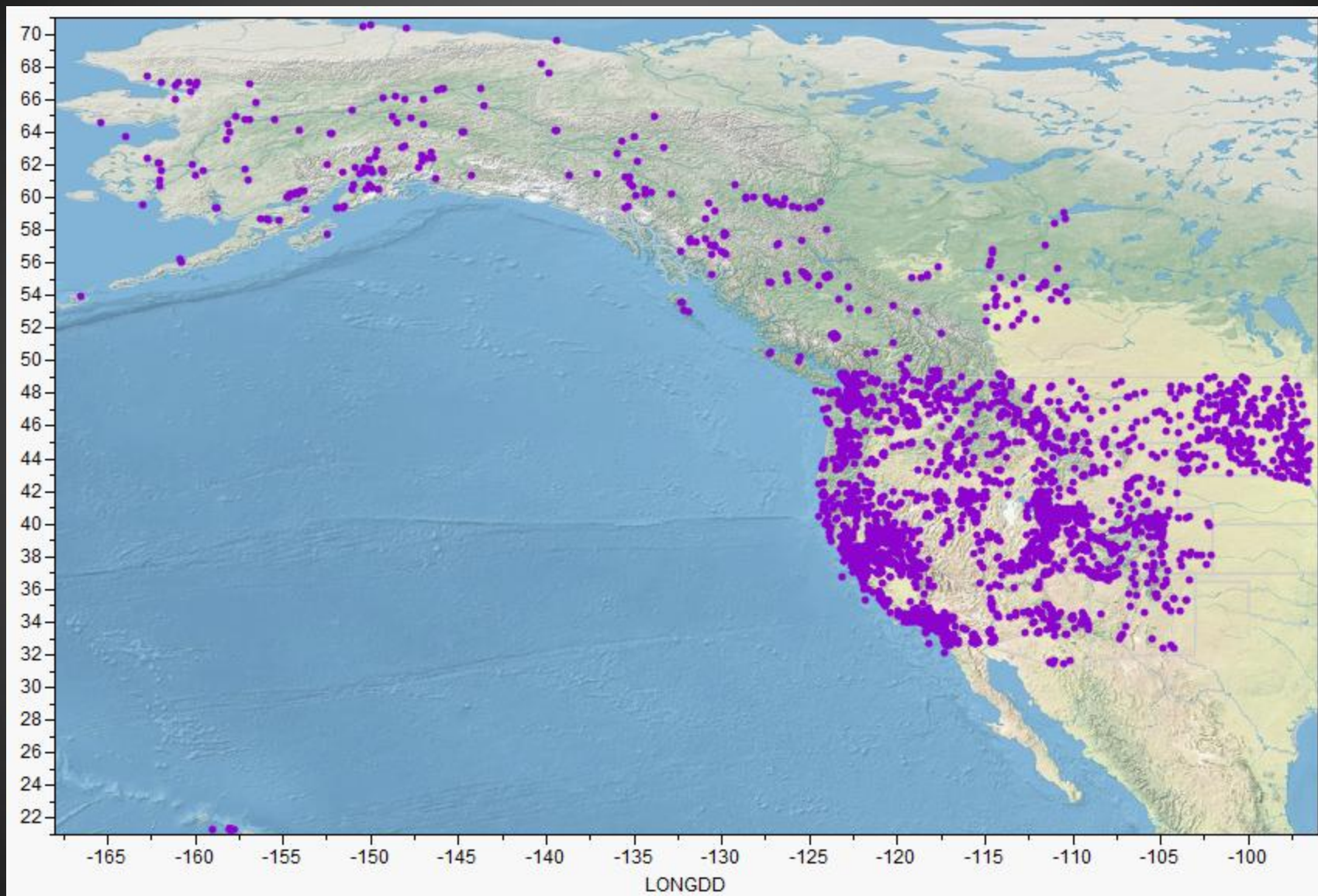
- diffuse regional mercury emissions
- an extensive legacy of gold, silver, and mercury mining
- trans-Pacific mercury deposition
- extreme range of geological variability

CLIMATE & LANDSCAPE STRUCTURE



We are coupling remotely-sensed spatial data, models of Hg deposition and climatological variation, with measurements of Hg and ancillary parameters in abiotic media and food webs across geographic and temporal gradients





Western Hg Synthesis Team Working Groups

[The Powell Center 20+]

Mercury Sources

Chris Eckley (EPA)*
Charlie Alpers (USGS)
Mae Gustin (UNR)
Dan Jaffe (UW)
Kristi Morris (NPS)
Jill Webster (FWS)
Anna Wilson (USGS)
Genine Wright (UNR)

Policy and Human Health

Elsie Sunderland (Harvard)*
Sandy Steffen (Env. Canada)*
Faviola Villatoro (IEC)
Clifton Dassuncao (Harvard)

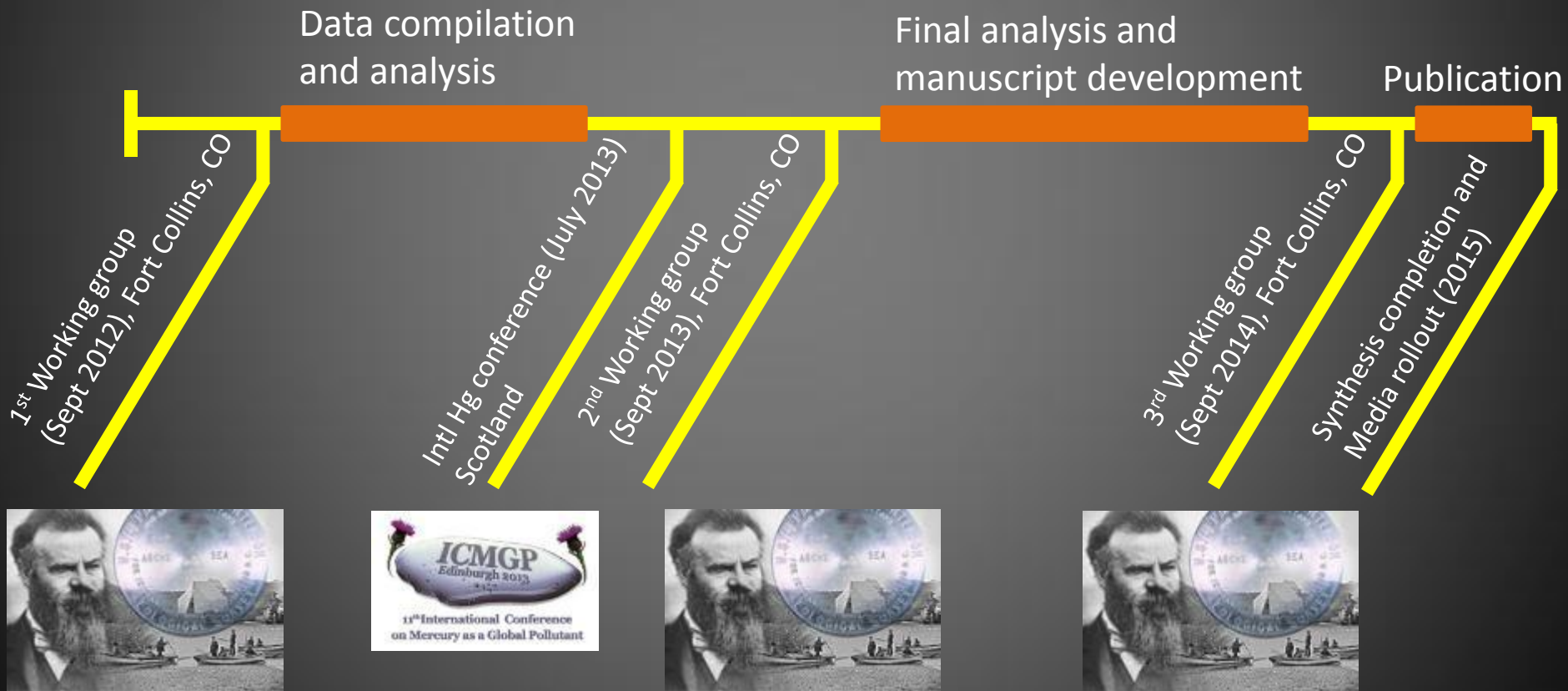
Fish, Wildlife, & Foodwebs

Collin Eagles-Smith (USGS)*
Davis Evers (BRI)*
Josh Ackerman (USGS)
Chris Cline (US FWS)
Jay Davis (SFEI)
John Elliott (Env. Canada)
Colleen Flanagan (NPS)
Allyson Jackson (OSU)
Philip Johnson (US FWS)
Jesse Lepak (CO DW)
Robin Stewart (USGS)
Madeline Turnquist (BRI)
Jim Wiener (UW)

Mercury Biogeochemistry

Mark Marvin-DiPasquale (USGS)*
Jacob Fleck (USGS)*
George Aiken (USGS)
Dave Krabbenhoft (USGS)
Allison Luengen (USF)
Robin Stewart (USGS)

Western Hg Synthesis: Timeline





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Questions?

